Title: THE LACTOSE OPERON OF LACTOBACILLUS DELBRUEKII AND

ITS USE FOR CONTROLLING GENE-TRANSCRIPTION AND/OR

EXPRESSION IN BACTERIAL CELLS

Inventor: Germond, J. et al. App. No.: 10/019,817

Docket No.: 112843-039 Replacement Drawing



FIG. 1

O1

853 860 870 880 LL44, LB68 .. T G T T T A C T A A A A A T A T T T T G G T A A A G C A

N62, LB10 .. TGTTTAC TAAAAGTATTTTGGTAAAACA

N141 ... TGGCGACTAAAAGTATTTTGGTAAAACA
ISL7

N299 ... A T T A C T A A A A A T A T T T T A G T A A A A C A

O2

890 900 LL44, LB68 TCTTGATTTGTTTAGTAAACGGGTCTATA...

N62, LB10 TCTTGATTTAGTAAACAAGTCTATA...

N141 T C T T G A T T T G T T T A G T A A A C A A G T C T A T A ...

N299 T C T T G G T T T A T T T A G T A A A C A A G T C T A T A ...

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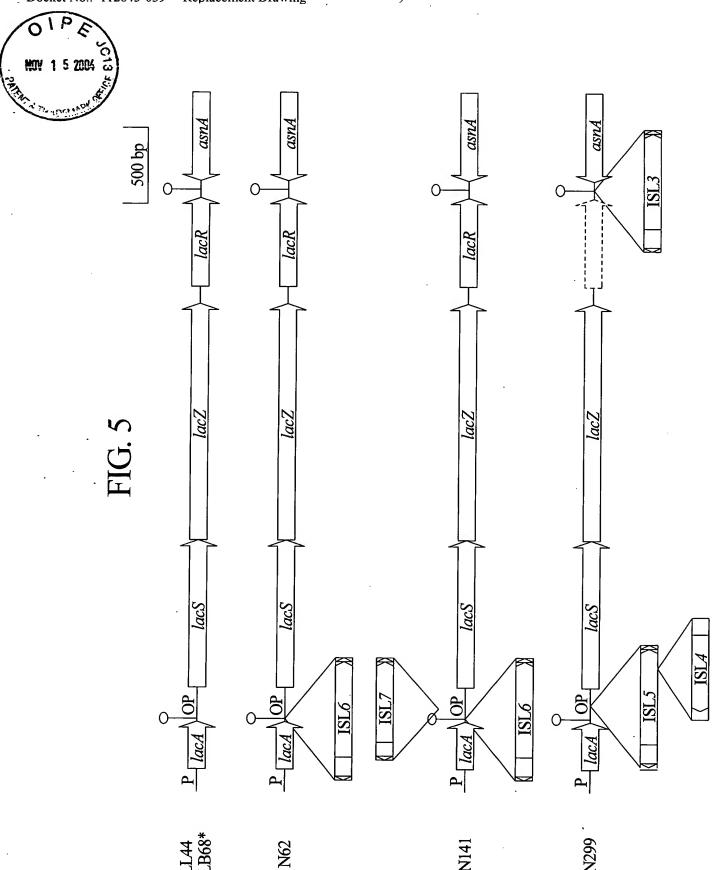
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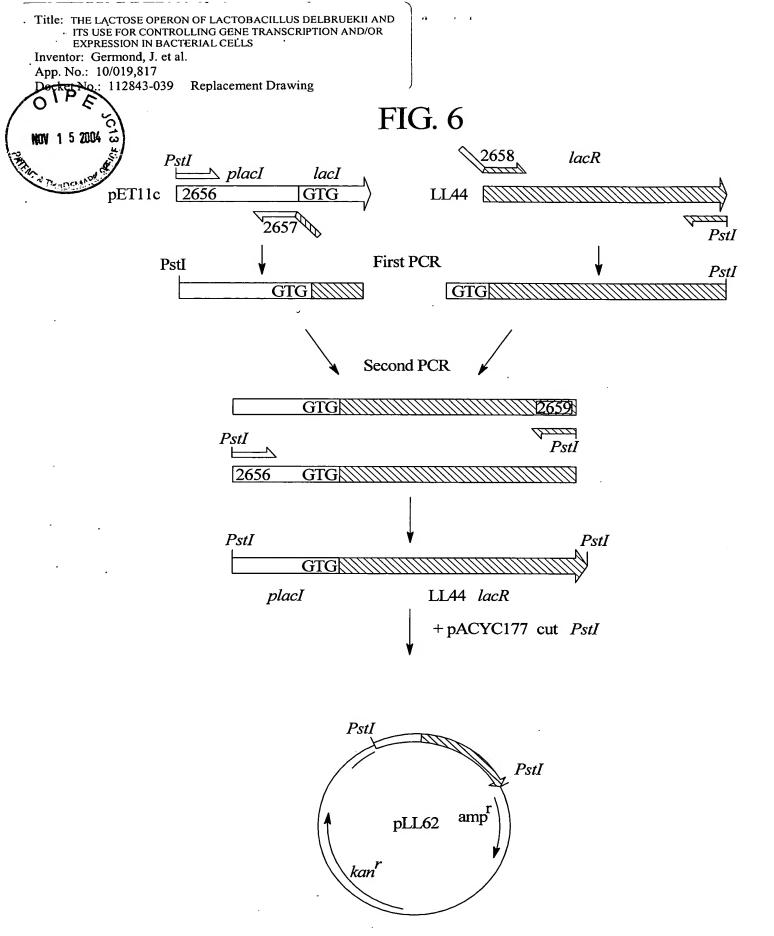


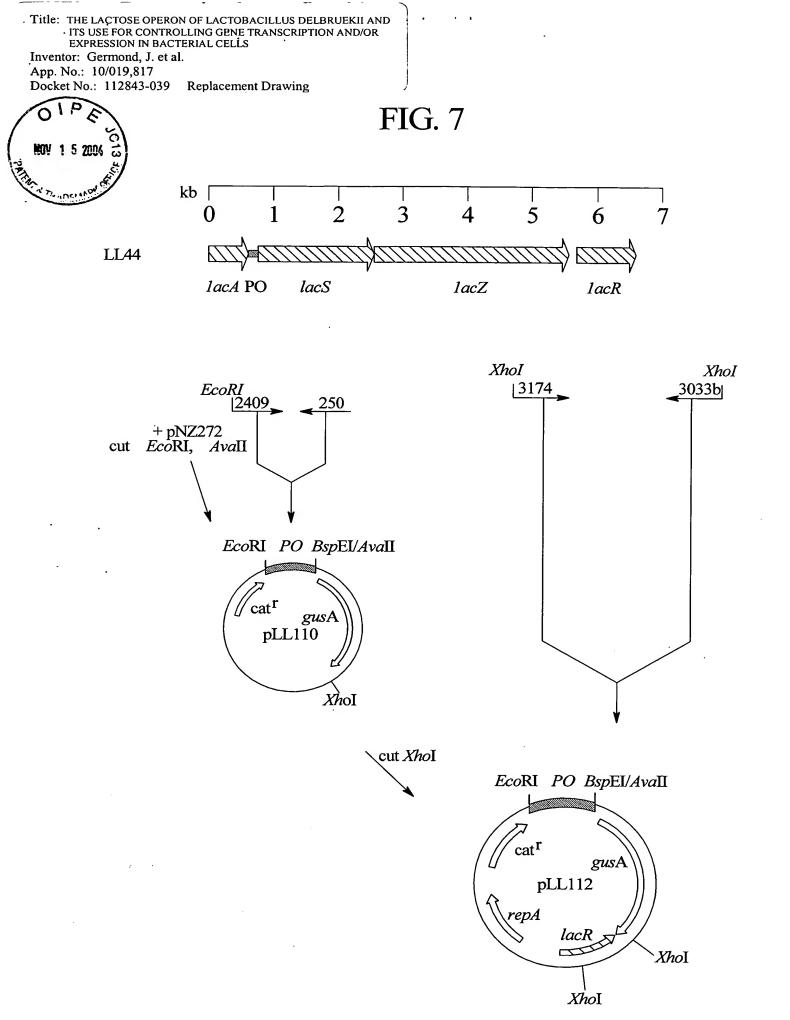
FIG. 4

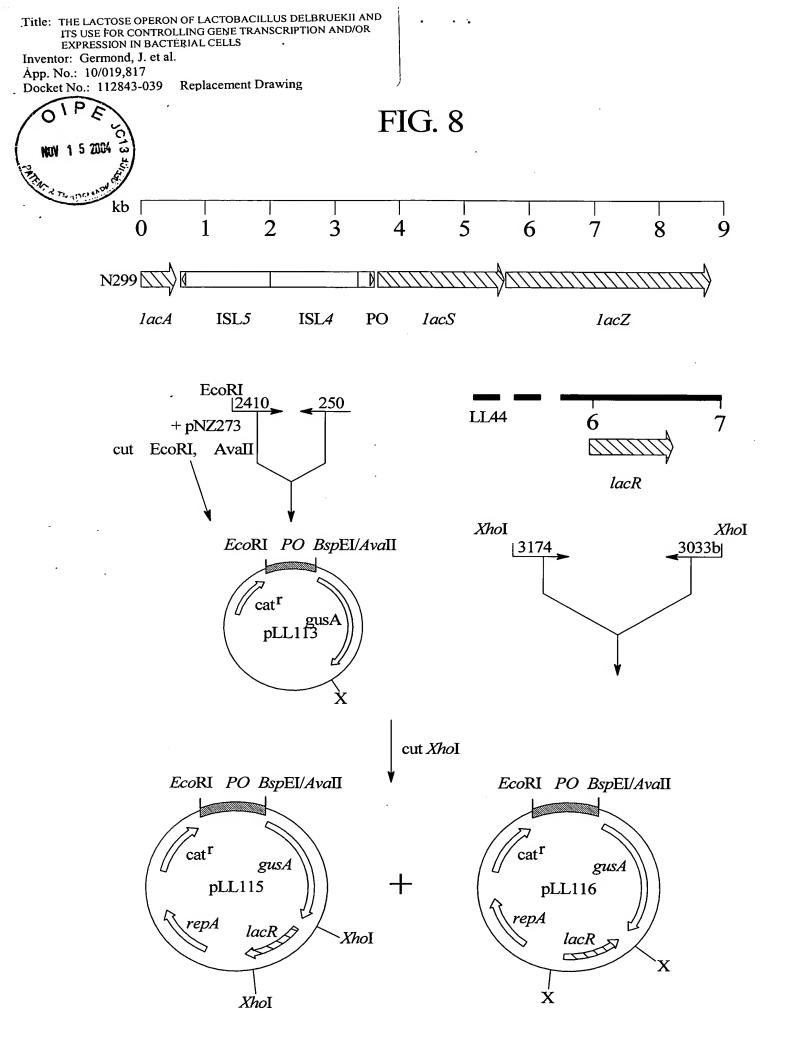
104 ω)	
1	GAATTTTGTCTGGATGCTCAGGAAGCCCGCCAGCTCAAGCTGGTGATTCAGCCACTTTTT stop lacZ
61	ACTGAA <u>TAA</u> TGCTACAATTGACTTAACAGCATAAAATTTTAGTAAAAGC G AGTGAAGAAG
121	ATGCCAACGATCAGAGAAGTGGCCAAGGCAGCGGCGTGTCGCCAGCGACGGTTTCCCGG M A T I R E V A K A A G V S P A T V S R
1	helix turn helix
181 21	GTCTTGAACTATGACCAGACCCTGTCGGTCAATGAGGCAACGCGGCAGAAGATATTCAAA \underline{V} \underline{L} $\underline{N}_{ }$ Y D Q T L S V N E A T R Q K I F K
241 41	ACTGCTGAAGCCATGCACTACCATAAGAGCCGGAAGACCAGAAAGAGCAAAGCGC T A E A M H Y H K S R K T R K S K Q K R
301 61	CTGGCGATCTGCCTGTGGTGTGACCAAGACCAGGAGATCAAGGACCTCTATTACTATTCA L A I C L W C D Q D Q E I K D L Y Y Y S
361 81	ATCAGAACCAGCGCGCAAGCAGGGCCAAGAAGCAGGGACTTGAAAGCCAGGTCATTTAT I R T S A Q A E A K K Q G L E S Q V I Y
421 101	CCGGCTGATCCTTTGCCCGATCCAGCTGCTTTAAGCGGGATTATCATGATTGGCTACCAG P A D P L P D P A A L S G I I M I G Y Q
481 121	CAGTATTCGCCAGACCGCTTGAATGAAGTCAAAAAGTCTGGCCTGCCCCTGGTCTTTGTC Q Y S P D R L N E V K K S G L P L V F V
541 141	GATACTGACACCTTAAAATTGGGTTACTGCTCAGTTGTGGCTGACTTTGGCCAGGCCATG D T D T L K L G Y C S V V A D F G Q A M
601 161	CAGGAGGCGCTAGAGGTCTTCTGGGGGCAGGGCAGGGAGCGGATCGCCCTTTTGGATGGT Q E A L E V F W G Q G R E R I A L L D G
661 181	GATTTGGACAGTAATTTTGATAAAAACAACTTGGTCGACTTCCGCTTCCGCGATTATAAG D L D S N F D K N N L V D F R F R D Y K
	▼
721 201	AAGAGCCTCGCGGCCCGGCCAGTACGACCCGGACT <u>TAG</u> TCTATGTTGGAAACTTCACT K S L A A R G Q Y D P D L V Y V G N F T
781 221	CCGCAATCTGGCTATGAAGCCATTAAAGAAGCTCTTAAGTCCGGCTCCTTCCCGAAAGCC P Q S G Y E A I K E A L K S G S F P K A
841 241	TTGATTGCGGCTAATGACGCCATGGCTATTGGAGCATTGAAGGCCTTTAAAGAAGCTGGA L I A A N D A M A I G A L K A F K E A G
901 261	ATTAAAGTCCCAGAGGACGTCAGTCTGATTTCTTTTAATGACACAACGGCAGCAGAATTT I K V P E D V S L I S F N D T T A A E F
961 281	GCCAACCCAGCCTTGACTAGCGTACATGTAGAGACC <mark>CAG</mark> CAGATGGGCCGAGCCAGCGTC A N P A L T S V H V E T Q Q M G R A S V
1021 301	AAGGTCATGAAAGACCTGCTGGATGATGATGAAGCCGGCACTTACAAGGTCACTTTCCCA K V M K D L L D D D E A G T Y K V T F P
1081 321	ACAAAACTCGTTTACCGGGAATCTTGCCCAAAAGCATAAGGGCATAGAGCATAATAACAG T K L V Y R E S C P K A *
1141	CAAAGAAATAGCTTGGAGATTGATTTTCTCCAAGCTATTTTTCGTATATATTATTGGCTGC stop asnA
1201 1261	ATTCTGTTGATCATTCTTGGGAATGGGACAGCTTCACGAACGTGGTCCAGCTTGCAGATC CAGGCAATGACCCGTTCAAAG

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FIG. 10

LL44

